

REMARKS/ARGUMENTS

Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

Upon entry of the above amendments, claims 1-14, as amended, and new claims 15-25, will be pending.

The amendments to claims 6-14 are of a formal and procedural nature and are not intended to change the meaning or scope of these claims.

Claim 6 is amended to remove the multiple claim dependency. New claims 21-24 are based on claim 6.

Claim 7 is amended to use the same format for the enclosure (parentheses) of "IX" at line 2 and following the formula. A similar change is introduced into claim 8. In addition, claim 8 is made self-contained by incorporating from claim 7 the definitions of S, R^1 , R^2 , n, m and p.

Claim 11 is amended to incorporate the definitions for "Phv" and "Papa" from page 9 of the specification. This change also removes the rejection of this claim under 35 U.S.C. 112, second paragraph.

Claim 12 is amended for clarity and consistency with more conventional claim language by changing the expression, "characterised in that, where" to --wherein--.

Finally, claim 14 is amended to avoid the potentially improper multiple claim dependency by physically incorporating the language from claim 6/1. New claims 15-18 correspond to original claim 6/2-5, respectively. New claims 19 and 20 corresponds to original claim 14/12/7 and 14/13/7, respectively.

New claim 25 is directed to the embodiment of Applicants' invention wherein the optional step (iii) is carried out at least one time.

Accordingly, no new matter is added and the claims are believed to be in condition for allowance.

The return of the initialed and dated Form PTO-1449 and the acknowledgment of receipt of the copies of certified priority documents is appreciated.

The suggestion to provide section headings in the specification is noted. However, since there is no affirmative obligation to use section headings and since section headings may be improperly relied upon to construe the claims which are contained in any patent

granted on this application, section headings are not being included. It is believed that the absence of section headings does not interfere with the compliance with 35 U.S.C. 112, first and second paragraphs.

Reconsideration and withdrawal of the rejection of claims 1-9, under 35 U.S.C. 102(b), as anticipated by Heinz *et al* US 5,049,651 (hereafter "US-651") is respectfully requested for at least the following reasons.

It is respectfully submitted that even if the characterization of the disclosure of US-651 is correct, the conclusion drawn (*i.e.*, that claims 1-9 are anticipated by this disclosure) is incorrect.

US-651 does not disclose a method for preparing a solid support material for carrying out a chemical reaction. The solid phase post-condensed (co)polyamides obtained by the process disclosed by the patentees would not be useful or amenable as a solid support for carrying out a chemical reaction. While the language "for carrying out a chemical reaction" appears in the preamble of claim 1, this phrase does give meaning and life to the body of the claim and should be considered as a matter of claim construction.

The disclosure of US-651 does not disclose a process which includes a step of reacting an amino functionalized solid material with a carboxylic acid having at least two similarly protected amino groups to form amide bonds between them.

The disclosure of US-651 does not disclose a process which includes a step of removing protecting groups (including the two similar protecting groups) in a single step (if at all).

The disclosure of US-651 does not include a step of repeating the reacting step and the protecting group removing step at least once.

For at least these reasons, the rejection of claims 1-5 as anticipated by US-651 should be withdrawn.

The disclosure of US-651 relates to the preparation of solid phase post-condensed (co)polyamides which are thermoplastically deformable, slightly branched polymers having increased melt viscosity and pronounced pseudoplasticity, *see, e.g.*, Abstract, col. 1, lines 6-15, which are used in a range of structural industrial applications, such as, for example, fibers, molded plastic parts and films, hot-melt adhesives and auxiliaries (*see*, col. 1, lines 27-30). *See also* col. 6, lines 20-34 for exemplification of the industrial uses for the partly

branched (co)polyamides according to the patent. Such materials as described in US-651 would not be useful as a solid support material for carrying out a chemical reaction.

Therefore, the rejection of at least claims 1-5 should be withdrawn for this additional reason.

Moreover, and in any event, as noted above, US-651 does not disclose the individual steps (i)-(iv) set forth in claim 1.

In this regard, US-651 discloses a process for preparation of a polymer by a single, complex, polycondensation reaction. The specific and discrete steps set forth in claim 1 are not disclosed, whether or not there is an overlap in potential reactants. One skilled in the art would not appreciate from the disclosure that, for example, the process of US-651 includes a step wherein an amino functionalized solid material is reacted with a carboxylic acid having similarly protected amino groups and whereafter, the protective groups are removed in a single step. Nor would the process of US-651 be adaptable to repeating steps (i) and (ii) one or more times, as set forth in step (iii) [see also new claim 25].

With regard to claim 6, it is respectfully submitted that the complex polycondensation reaction of US-651 is so vastly different from the process according to at least claim 1, that there is no *prima facie* basis for ascribing the functional and structural features of the solid support material obtained according to the method of claim 1 to the industrial films, fibers, etc., obtained according to the process disclosed in the reference.

Accordingly, claim 6 is not anticipated by US-651 and this rejection should be withdrawn.

There is simply no disclosure of a solid support material comprising a compound of formula (IX) as set forth in claim 7 or of a compound of formula (XIII) as set forth in claim 8.

Accordingly, withdrawal of the rejection of these claims is respectfully requested.

US-651 does not disclose a method for preparing a compound on a solid support material or a method which comprises binding a reagent to a linkage agent of a support material which would correspond to a support material made according to a process of claim 1 or having the composition as set forth by Formula (IX) in claim 7. There is no disclosure in US-651 of a method which includes a step of cleaving of cleaving a product from a solid support as set forth in claim 9.

Accordingly, for all of the above reasons, the rejection of claim 9 as anticipated by US-651 should be withdrawn.

Again, the disclosure of a solid-phase post condensation reaction for obtaining industrially useful (co)polyamides is not anticipatory of the subject matters of claims 1-9 or generally of a solid phase supported reaction or a solid support material therefor.

For any or all of the forgoing reasons, withdrawal of the reliance on US-651 as anticipating claims 1-9 (as well as new claims 21-24 and 25) is believed to be appropriate and is respectfully requested.

It is noted that claims 10-14 (as well as new claims 15-20) are considered to be novel and non-obvious in view of US-651.

However, claims 1-14 are all rejected under 35 U.S.C. 102(b) as anticipated by Kates *et al.*

Applicants respectfully disagree and traverse this rejection for at least the following reasons.

According to Kates *et al.*, an ornithine with one Fmoc protecting group and one Boc protecting group is reacted with an MBHA resin. Since Fmoc and Boc are not "similar" amino protecting groups, there is no disclosure by Kates *et al.* of a process which includes a step of reacting an amino functionalized solid material with a carboxylic acid having at least two similarly protected amino groups such that the protecting groups may be removed in a "single step."

Those skilled in the art of solid-phase peptide chemistry are well aware that Fmoc and Boc are dissimilar protecting groups; for example, requiring substantially different conditions for deprotection. For example, as noted on page 2, line 3 of the specification of this application, where the Kates *et al.* paper is discussed, explains that "[o]rnithine ... is differently protected on each amino group" (emphasis added) in the process described in this paper.

As the Examiner and the practitioner of ordinary skill in this art are well aware, peptide synthetic protocols tend to use either Fmoc or Boc as the α -amino protecting group and that very different conditions are required in the synthesis depending on which protecting group is selected due to the significant differences in the chemical lability of the respective amino-Boc and amino-Fmoc adducts.

Therefore, the process disclosed by Kates *et al* does not include the removal of the protecting groups (*i.e.*, at least two such protecting groups) in a single step. The Examiner has already recognized that the process of Kates *et al* involves only removal of a single protecting group.

For at least these reasons, the rejection of claims 1-5 as anticipated by Kates *et al*, is respectfully traversed and withdrawal of the rejection is respectfully requested.

The solid supports according to Kates *et al*, are not the same as the solid supports obtained according to the invention method and, therefore, claim 6 is not anticipated by this reference. For example, the loading potential of the supports of Kates *et al* is 0.3 to 0.5 mmol/g (*see, e.g.*, Abstract, last line) is substantially lower than the loading potential of the solid supports according to the method of the present invention.

A comparison of the structure of the support illustrated in Fig. 2 on page 370 of Kates *et al*, with the structure shown on page 14 of the present application provides additional evidences of the structural dissimilarities between the solid supports of the present invention and the solid supports according to Kates *et al*.

Therefore, withdrawal of the rejection of claim 6 as anticipated by Kates *et al* is respectfully requested.

There is no disclosure of a solid support comprising a compound having formula (IX) nor of a compound having the formula (XIII); for example, looking at Fig. 2, there is no component of the reference's supports which corresponds to R² of formulas (IX) and (XIII). That is, the supports shown in Fig. 2 have only a single linking group with m+1 available for bonding.

Therefore, claims 7 and 8 are not anticipated by Kates *et al* and withdrawal of the rejection of these claims is respectfully requested.

Since claim 9 relates to a method for using the novel solid supports of claims 6 or claim 7, the method of this claim is novel over the disclosure of Kates *et al*.

Claims 10-14 are dependent upon claim 9 and are novel for this reason alone.

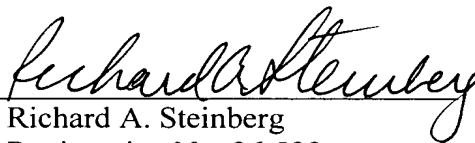
For any and all of the foregoing reasons, the rejection of claims 1-14 (as also may be applied to new claims 15-25) as anticipated by Kates *et al* is respectfully traversed and withdrawal of this ground of rejection is respectfully requested.

Therefore, all objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Should any issues remain unresolved, the Examiner is encouraged to contact the undersigned attorney for Applicants at the telephone number indicated below in order to expeditiously resolve any remaining issues.

Respectfully submitted,

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